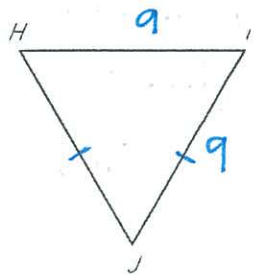
Name: Mitrovich - Key TP: _____

HW#33H: Two Column Proofs
Honors Geometry
Due Date: Thursday. Nov 13th. 2014

Failure to show work on all problems or use complete sentences will result in a LaSalle.

1. **GIVEN:** $HI = 9$, $IJ = 9$, $\overline{IJ} \cong \overline{JH}$
PROVE: $\overline{HI} \cong \overline{JH}$



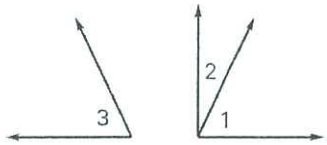
total /10

Statements	Reasons
1. $HI = 9$	1. Given
2. $IJ = 9$	2. Given
3. $HI = IJ$	3. substitution
4. $\overline{HI} \cong \overline{IJ}$	4. def'n of $\cong$ segments
5. $\overline{IJ} \cong \overline{JH}$	5. Given
6. $\overline{HI} \cong \overline{JH}$	6. transitive prop of $\cong$

QED or □

2. **GIVEN:** $\angle 3$ and $\angle 2$ are complementary.
$m\angle 1 + m\angle 2 = 90°$

PROVE: $\angle 3 \cong \angle 1$



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Statements	Reasons
1. $\angle 3$ and $\angle 2$ are complementary	1. Given
2. $m\angle 1 + m\angle 2 = 90°$	2. Given
3. $m\angle 3 + m\angle 2 = 90°$	3. def'n of comp $\angle$'s
4. $m\angle 1 + m\angle 2 = m\angle 3 + m\angle 2$	4. substitution
5. $m\angle 1 = m\angle 3$	5. subtraction prop of =
6. $\angle 1 \cong \angle 3$	6. def'n of $\cong$ $\angle$'s

$-m\angle 2$ $-m\angle 2$

QED or □

3. **GIVEN:** $AL = SK$
PROVE: $AS = LK$

total /10

Statements	Reasons
1. $AL = SK$	1. Given
2. $LS = LS$	2. Reflexive prop of =
3. $AL + LS = SK + LS$	3. addition prop of =
4. $AL + LS = AS$	4. segment add. post.
5. $SK + LS = LK$	5. segment add. post.
6. $AS = LK$	6. substitution

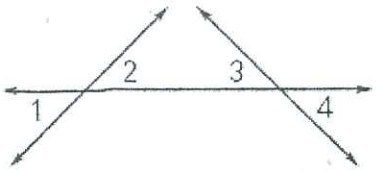
$a + c = b + c$

QED or □

4.

GIVEN: $\angle 2 \cong \angle 3$

PROVE: $\angle 1 \cong \angle 4$



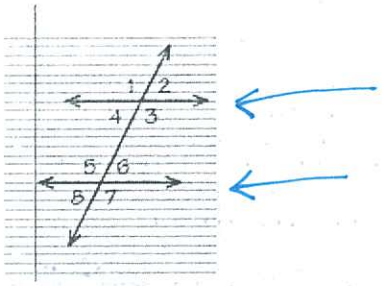
total / 5

Statements	Reasons
1. $\angle 2 \cong \angle 3$	1. Given
2. $\angle 3 \cong \angle 4$	2. vertical angles (or vertical angle theorem)
3. $\angle 2 \cong \angle 4$	3. transitive
4. $\angle 1 \cong \angle 2$	4. vertical angles
5. $\angle 1 \cong \angle 4$	5. transitive

QED

Directions: Read the prompt below. On a seperate piece of paper, respond to it in at least 5 sentences. Your response will be scored out of 10 points on the rubric.

Refer to the figure below. What is the least number of angle measures you need in order to find the measure of every angle? Explain your reasoning.



are these // lines?

Criteria	0	1	2
Thesis/Answer	Thesis/Answer is incorrect.	Thesis/Answer is correct, but has small errors in wording and/or vocabulary.	Thesis is relevant, accurately stated and addresses the prompt.
Defense	Explanation does not answer the question as given.	Explanation attempts to answer the question, but is missing one or more correct pieces.	Explanation is completely correct.
Vocabulary	Vocabulary is used incorrectly or vocabulary terms unrelated to the prompt are used.	Vocabulary is used correctly in most places, but there are one or two errors in understanding.	All math vocabulary is used correctly and demonstrates knowledge in context.
Grammar	Explanation cannot be understood clearly after two readings.	Explanation requires two readings for the teacher to understand.	Explanation can be read and comprehended easily in one reading.
Professionalism	Explanation in incomplete.	Explanation is complete with minimum effort.	Explanation exceeds minimum effort or shows a great deal of thought and/or quality.

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